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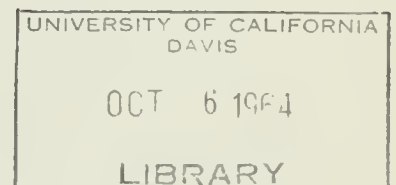


State of California  
THE RESOURCES AGENCY  
Department of Water Resources

BULLETIN No. 119-18

FEASIBILITY OF SERVING  
THE UPPER SANTA CLARA VALLEY  
WATER AGENCY  
FROM THE STATE WATER PROJECT

AUGUST 1964



HUGO FISHER  
*Administrator*  
The Resources Agency

EDMUND G. BROWN  
*Governor*  
State of California

WILLIAM E. WARNE  
*Director*  
Department of Water Resources



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## FOREWORD

In November 1960, the California Water Resources Development Bond Act was approved by the State's electorate, paving the way for the construction of the State Water Project. Since that time, many local water service agencies throughout the State have applied to the Department of Water Resources for consideration as potential contractors with the State for water service from the proposed facilities. Several water agencies have been organized and formed since November 1960 expressly for the purpose of obtaining supplemental water supplies from the State facilities for the areas they represent.

Prior to executing contracts for a water supply with public agencies, the Department of Water Resources made studies of those agencies and the areas encompassed by them to determine the propriety of entering into such contracts. These studies were made with the goal of evaluating (1) each area's future demand for supplemental water supplies, (2) the legal ability of each agency in question to enter into a water supply contract with the State, (3) the engineering feasibility of providing the proposed water service, and (4) the financial ability of each agency and its constituent area to bear the financial burden necessarily imposed upon it by a water supply contract with the State.

The results of the studies made of each agency, as described above, along with significant incidental and supporting material, have been embodied in separate reports and have or will be published by the Department of Water Resources for the benefit of interested agencies and persons. This bulletin, dealing with the Upper Santa Clara Valley Water Agency, is one of a series of such publications.



## TABLE OF CONTENTS

	<u>Page</u>
FOREWORD . . . . .	iii
ORGANIZATION . . . . .	ix
CHAPTER I. INTRODUCTION . . . . .	1
Description of the Service Area. . . . .	2
History of the Area . . . . .	2
Restrictions on Future Development . . . . .	4
Land Classification and Present Land Use . . . . .	5
Description of the Upper Santa Clara Valley Water Agency . . . . .	7
General Powers . . . . .	7
Fiscal Powers . . . . .	7
Annexations and Exclusions of Land . . . . .	8
CHAPTER II. PRESENT AND FUTURE DEVELOPMENT OF ECONOMY . . . . .	11
Agricultural Activities. . . . .	11
Nonagricultural Activities . . . . .	14
Possibilities for Economic Development . . . . .	15
Population . . . . .	17
Historical Population Growth . . . . .	17
Future Population Growth. . . . .	18
Future Land Use. . . . .	20
Urban Land Requirements . . . . .	20
Agricultural Land Requirements . . . . .	21
Total Land Use . . . . .	22

	<u>Page</u>
CHAPTER III. DEMAND FOR PROJECT WATER . . . .	25
Present and Future Unit Water Use . . . . .	25
Unit Values of Urban Water Use . . . . .	25
Unit Values of Agricultural Water Use . . . . .	26
Present and Future Water Utilization . . . . .	27
Municipal and Industrial Use . . . . .	27
Agricultural Use . . . . .	28
Institutional Water Requirements . . . . .	29
Local Water Supplies and Ground Water Overdraft . . . . .	29
Demand for Project Water . . . . .	33
Supplemental Water Requirements . . . . .	33
Buildup of Demand for Project Water . . . . .	34
CHAPTER IV. COST OF WATER SERVICE FROM THE STATE WATER PROJECT . . . . .	37
State Water Project. . . . .	37
Physical Features of State Water Project . . . . .	38
Cost of Project . . . . .	38
Local Distribution Facilities . . . . .	40
Physical Features of Local Distribution Facilities . . . . .	40
Cost of Local Distribution Facilities . . . . .	40
Joint Local Distribution Facilities . . . . .	42

	<u>Page</u>
CHAPTER V. ECONOMIC JUSTIFICATION AND FINANCIAL FEASIBILITY . . . . .	45
Economic Justification . . . . .	45
Financial Feasibility . . . . .	47
Present and Projected Assessed Valuation . . . . .	47
Present and Projected Bonded Indebtedness . . . . .	49
Analysis for Financing Future Obligations . . . . .	51
Comparison with Assessed Valuations. . . . .	52
Levels of Ad Valorem Taxation . . . . .	53
CHAPTER VI. CONCLUSIONS . . . . .	57

#### TABLES

##### Table No.

1	Present Land Use . . . . .	6
2	Historical and Projected Acreage of Irrigated Crops, 1960-1990 . . . . .	13
3	Historical and Projected Populations, 1940-1990 . . .	20
4	Urban Land Requirements, 1960-1990 . . . . .	21
5	Farm Land Requirements, 1960-1990. . . . .	22
6	Present and Projected Total Land Use, 1960-1990 . . .	23
7	Estimated Present and Future Unit Values of Applied Urban Water Use, 1960-1990 . . . . .	26
8	Estimated Annual Unit Values of Applied Agricultural Water Use, in Feet of Depth. . . . .	27
9	Present and Projected Urban Water Requirements, 1960-1990 . . . . .	28
10	Present and Projected Agricultural Water Requirements, 1960-1990 . . . . .	29
11	Present and Future Total and Supplemental Water Requirements, 1960-1990. . . . .	34

## TABLES

<u>Table No.</u>		<u>Page</u>
12	Demands for Project Water, 1972-1990 . . . . .	35
13	Annual Charges for Water Service from the State Water Project, 1964-1990 . . . . .	39
14	Estimated Annual Component Costs of Local Distribution Facilities, 1972-1990 . . . . .	41
15	Estimated Unit Costs of Water Service from the State Water Project and Local Distribution Facilities . . . . .	42
16	Historical Assessed Valuations . . . . .	48
17	Present and Projected Assessed Valuations, 1962-1990 .	49
18	Present Bonded Indebtedness by Type of District . . .	50
19	Historical Bonded Indebtedness . . . . .	51
20	Summary of Capital Repayment Obligations Resulting from Water Service . . . . .	52
21	Weighted Average Ad Valorem Tax Rate Components . . .	53
22	Tax Rates Necessary for Capital Repayment of Local Distribution Facilities and State Water Project . .	55

## FIGURE

<u>Figure No.</u>		<u>Following Page</u>
1	Historical and Projected Populations of the Upper Santa Clara Valley Water Agency, 1940-1990	20

## PLATES

<u>Plate No.</u>	
1	Location Map and Boundaries of Agency with Land Use in 1961
2	Ground Water Basin and Proposed Main Local Distributary

## APPENDIX

Credit Analysis of the Upper Santa Clara Valley Water Agency

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THE RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

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## CHAPTER I. INTRODUCTION

The Upper Santa Clara Valley Water Agency recently executed a contract with the State of California for the service of water from the State Water Project. The contract was the result of agreements reached between the agency and the Department of Water Resources, arising from negotiations based on data developed by these organizations.

In June 1962, the Upper Santa Clara Valley Water Agency published a detailed report on the water resources and water requirements of the agency entitled "Investigation of Costs of Imported Water for Upper Santa Clara Valley Water Agency." This report, which was prepared by the consulting engineering firm of Bookman and Edmonston, concluded that the agency's area would require an imported water supply beginning in the early 1970's and that its need for imported water would increase to about 23,000 acre-feet per year by 1990.

Prior to the passage of the California Water Resources Development Bond Act, the Department of Water Resources made an analysis of future water needs in various regions of Southern California. The results of this analysis were published in Bulletin 78, Appendix D, "Economic Demand for Imported Water" in 1959. The present report utilizes the data appearing in Bulletin 78 that are specifically applicable to the Upper Santa Clara Valley Water Agency. The findings presented in this report were available to the signators at the time of contract execution.

Included in the report is a review of the economic history and geographical characteristics of the area in which the agency is located, its recent economic development and future economic potential, estimates of its future water needs, and a schedule of the probable costs of serving the agency with water from the State Water Project. The report closes with an

evaluation of the economic and financial feasibility of satisfying these needs through water service from the State Water Project.

### Description of the Service Area

The Upper Santa Clara Valley Water Agency is located about 35 miles northwest of downtown Los Angeles in the northwestern part of Los Angeles County. It encompasses most of the valley lands and adjacent hill lands along the Upper Santa Clara River, and includes the communities of Newhall, Saugus, Solemint, and Castaic. The agency's boundaries extend about 16 miles from east to west and about 10 miles from north to south and encompass a total area of 79,000 acres.

The valley lands in the area range in elevation from 1,000 feet above sea level near Castaic Junction to about 1,800 feet at the bottom of Soledad Canyon. The hill lands adjoining the valleys attain a maximum elevation of approximately 3,000 feet. The area in which the agency is located is shown on Plate 1, "Location Map and Boundaries of Agency with Land Use in 1961".

The area usually has slightly more rain and greater temperature variations than the coastal plains of Southern California. Average minimum and maximum temperatures at the Newhall weather station range from 30 to 63 degrees in January and from 50 to 92 degrees in July. Rainfall occurs almost entirely during the winter and, at this station, averages about 18 inches per year.

### History of the Area

The early history of the area in which this agency is located began with the founding of the San Fernando Mission in 1797. At first, the large Indian population in the Upper Santa Clara Valley to the north was

outside the influence of this new mission. To bring the Indians under their guidance, the mission fathers decided to build an Asistencia at Chaquaybit, in the vicinity of what is today Castaic. This building was completed in 1804.

After California became a Mexican province in 1822, the vast mission land holdings in various parts of the State were broken up into a series of privately owned ranchos. A large tract of land belonging to the San Fernando Mission was deeded as the San Francisco Rancho to Antonio del Valle and his heirs in 1839. All of the territory within the Upper Santa Clara Valley Water Agency was once a part of this old rancho whose wealth was derived largely from cattle grazing. It was on this rancho that California's first gold discovery took place in 1842. The deposits were quietly worked until California became American territory in 1848.

In 1875, the rancho was purchased by Henry M. Newhall and it soon became known as the Newhall Ranch. In that same year, California's first oil well was brought into production near the newly established community of Newhall. This was the first of a series of oil wells in the Newhall area, most of which are actively worked today. The Newhall Ranch was retained by the Newhall family for many years and is today largely under the ownership of the Newhall Land and Farming Company. The ranch has engaged in extensive cattle grazing and oil operations almost from its inception, but in recent years a large share of its holdings have been devoted to the production of irrigated crops as well.

The early history of the Santa Clara Valley was also influenced by its geographical position astride the mountain barrier separating Los Angeles from the San Joaquin Valley. As traffic between these areas increased, good roads became a pressing necessity. Communication was facilitated when Edward F. Beale and his men cut his toll road through the

mountains near Newhall in 1863. Several years later, the Southern Pacific Company completed its main line from San Francisco to Los Angeles via the Newhall tunnel, thus providing Southern California with its first railroad link with the East.

The next few decades saw the extension of new roads through the area, tying it more closely to the rest of the State. Among the most important of these highways was the first ridge route, a pioneer automobile road connecting Los Angeles and the San Joaquin Valley, which was opened to traffic in 1919. The economy of the valley, however, remained almost entirely dependent upon agricultural and oil production until the late 1950's when the Lockheed Aircraft Corporation established a space research facility near Castaic Junction. Since that time a certain amount of diversified industrial development has taken place, and urban subdivisions have been rapidly growing on lands not owned by the Newhall Land and Farming Company.

#### Restrictions on Future Development

The rate of economic development of the Upper Santa Clara Valley Water Agency has been slower than in comparable areas of Southern California because of the policy of the principal landowner toward development of land for urban uses. Although some of the area within the district is hilly or mountainous, there are large quantities of relatively level land which are suitable for urban development. A large portion of the most favorably located lands are under the ownership of the Newhall Land and Farming Company. This company has been carefully studying the means of developing its lands in a manner that would produce a fully-integrated community of industry, business, and residential areas. Accordingly, the haphazard and scattered development pattern that has characterized many areas surrounding the rapidly-growing Los Angeles metropolitan area is not expected to occur

in this area. This procedure, however, makes the rate of development in the area largely dependent upon one company and has acted to retard its rate of growth in the past. On a long-term basis, however, it is believed that the policies followed by this company will be beneficial to the area.

It should also be noted that several areas within the agency are currently devoted to Los Angeles County detention facilities. It was assumed that this land would remain in its present status and not be available for future urban development during the 30-year projection period covered by this report.

At the present time, local water supplies are adequate for existing agricultural and urban users, and it is likely that they will be sufficient to support a certain amount of additional urban expansion, especially if this expansion occurs on currently irrigated lands. However, as will be shown in Chapter III of this report, supplemental water supplies must be obtained if the area is to achieve its full economic potential.

#### Land Classification and Present Land Use

The Department of Water Resources made a general land use survey of the Upper Santa Clara Valley area in 1961. Data from this survey and from detailed topographic maps of the area were used to prepare estimates of the amount of habitable and uninhabitable land in the Upper Santa Clara Valley Water Agency for the purpose of determining the physical limits of future agricultural and urban development.

In preparing these estimates, the five parcels of land which are presently occupied by the Los Angeles County detention facilities were broken out from the total acreage of the area and listed separately. Of the remainder, land areas presently in agricultural or urban use were tabulated and classified as usable land. Then, the acreages of water surface,



barren land, and other classes obviously unfit for agricultural or urban use were removed and classified as unusable land. Included in this latter category were lands that appeared to be too steep, or constituted washes or other nonproductive lands. The remainder of the land, along with lands presently in use, was classified as habitable or irrigable. The department's estimate of present land use in the Upper Santa Clara Valley Water Agency is shown in Table 1.

TABLE 1  
PRESENT LAND USE<sup>1/</sup>

Type of land use	: Total acreage
Developed urban land	3,676
Irrigated farm land	5,470
Nonirrigated farm land	2,274
Fallow and idle land	2,321
Miscellaneous farm lands	531
County detention facilities	<u>3,700</u>
Subtotal, developed lands	17,972
Undeveloped irrigable or habitable land	<u>33,555</u>
Subtotal, usable land	51,527
Lands unsuited for development	<u>27,243</u>
Total land area	<u>78,770</u>

<sup>1/</sup> As of 1961.

## Description of the Upper Santa Clara Valley Water Agency

The Upper Santa Clara Valley Water Agency was established in April 1962, primarily for the purpose of contracting with the State for supplemental water supplies from the State Water Project. The agency was organized under the provisions of Chapter 28, 1st Executive Session, 1962, known as the Upper Santa Clara Valley Water Agency Law. This legislation prescribes the district's organization, management, financing, and other powers and duties.

### General Powers

Section 15 of the agency's enabling act authorizes the agency to acquire water from the State of California under the State Water Plan, to construct and operate water distribution facilities, to acquire property, including water rights, by contract or eminent domain, to regulate the use of agency water during times of drought, and to construct and operate hydroelectric works. The agency is authorized to contract as necessary to carry out its powers and is specifically empowered to contract with the State for delivery of water under the State Water Plan. There is no requirement that such a contract be submitted to the agency's voters. The agency is also authorized to contract with the State for water from the State Water Project by provisions of the Central Valley Project Act.

The agency is governed by a seven-man board of directors, six of whom are elected from divisions within the agency and the other, at large. All resident registered voters may vote in agency elections.

### Fiscal Powers

The agency's board is required, under the provisions of Section 25 of the enabling act, to fix water rates that will provide revenues

sufficient to pay the operating expenses of the agency, pay the cost of water received under the State Water Plan, provide funds for repair, depreciation, and improvement of works, and pay the interest and principal on any bonded debt. Water rates must be uniform for like classes of service except that special rates may be set within improvement districts or within later annexed areas. If the revenues from water sales are inadequate to meet these needs, it is mandatory for the board to raise the necessary funds by levying a tax on property in the agency. There is no limit on the tax rates which may be set for such purposes.

The agency may issue general obligation bonds for the acquisition, construction, or repair of improvements, to obtain funds to meet obligations under a contract with the State, or to meet the terms of annexation to a metropolitan water district. General obligation bonds may be issued for the entire agency or only for an improvement district. Bonds are limited to a five percent annual interest rate and a maturity of 40 years and must be authorized by a two-thirds majority at a bond election. The agency may also issue revenue bonds under the Revenue Bond Act of 1941. Whenever the board of directors deems necessary, it may issue negotiable promissory notes in an amount not to exceed the lesser of \$1,000,000 or two percent of the assessed valuation of taxable property in the agency. The interest rate on notes is limited to six percent and their maturity to a period of three years. Warrants may be issued at an interest rate not to exceed six percent to pay the formation expenses of the agency.

#### Annexations and Exclusions of Land

Sections 36 and 37 of the enabling act give the agency authority to annex additional land. This land need not be contiguous with other parts



of the agency. Proceedings for the annexation of inhabited territory may be initiated by a petition signed by at least ten percent of the voters residing in the area proposed for annexation who voted for the office of Governor in the most recent general election. The land under consideration may then be annexed by the agency upon the approval of the petition by the agency's board of directors and subsequent approval by a majority of those voting in an election held in the area proposed for annexation. Proceedings for the annexation of uninhabited territory may be initiated by resolution of the board or by petitions signed by owners of at least one-fourth of the property affected, both by area and assessed valuation. For the purposes of the act, territory shall be deemed uninhabited if less than 12 voters reside therein at the time annexation proceedings are initiated. The board may then adopt an ordinance approving the annexation, except that such action may not be taken if protests are received from owners of one-half the value of the property proposed for annexation.

Territory within the agency may also be excluded from it under Sections 38 and 39 of the agency's enabling act. Exclusion proceedings may be initiated by a resolution of the board of directors or by a petition signed by at least ten percent of the voters who reside in the area proposed for exclusion and who voted for the office of Governor in the most recent general election held prior to the filing of the petition. If one or more cities are located in the area to be excluded, then the petition must be signed by at least ten percent of the voters so voting in each city. If the petition or resolution is subsequently approved by a majority of those voting in an election held in the area, the area will be excluded from the agency. Proceedings for the exclusion of uninhabited territory may be initiated by resolution of the board of directors or by a petition signed by owners of at

least one-fourth of the property affected both by area and assessed valuation. The board may then, after a hearing, approve or disapprove the exclusion. The exclusion may not be approved, however, if protests are filed by owners of half the value of the affected property. Property that becomes excluded from the agency's territory will remain taxable by the agency for the repayment of bonded indebtedness existing at the time of exclusion, until such indebtedness is fully repaid.

## CHAPTER II.   PRESENT AND FUTURE DEVELOPMENT OF ECONOMY

The economic development of the Upper Santa Clara Valley began with the introduction of livestock ranching and the discovery and production of petroleum products during the middle of the nineteenth century. Since that time, agricultural activities have become more diversified, and today, poultry, alfalfa, and vegetable production rank as significant farm industries. While agriculture and oil production still constitute the leading elements of the economy, the area's economic structure has been changing during the past few years. Farming has leveled off in both acreage and production, while urban development has been increasing, providing the area with a small industrial nucleus and a number of new residential subdivisions in the vicinity of Newhall, Solemint, and Dry Canyon.

The valley's favorable geographic location and the continuing high rate of in-migration into Southern California are expected to contribute to the relatively rapid urban development of the agency's area over the next three decades, resulting in a more than tenfold increase in population. This rate of development, however, has been predicated upon the assumed availability of a water supply sufficient to sustain this growth.

### Agricultural Activities

As previously mentioned, the economy of the Upper Santa Clara Valley rested almost entirely upon agricultural activities and oil production until relatively recent years. While the relative importance of agriculture has declined during the past decade, it still accounts for a major share of the area's wealth.

A land use survey made by the department in 1961 delineated a total of 10,596 acres, or 13.4 percent of the agency's land as devoted to agricultural or semiagricultural use. Of this total, 5,470 acres were classified as irrigated land, and 5,126 acres as nonirrigated land. Most of the irrigated lands are located in the large level areas adjacent to Newhall, Saugus, and Castaic, and are owned principally by the Newhall' Land and Farming Company. Alfalfa, deciduous fruits, and vegetables are the principal irrigated crops. An important livestock industry, centering mainly around cattle grazing, has existed on nonirrigated lands in the valley for more than a century. While cattle grazing probably constitutes the largest source of dry-land farm income, considerable revenue is also derived from the production and sale of turkeys, chickens, and dry-farmed grain. During the late 1940's, advancing urbanization in southeastern Los Angeles County caused ranchers to seek new sites for hog raising, and a number of these ranches were relocated in isolated canyons tributary to the Santa Clara Valley. Hog production is said to have suffered during the past few years, however, due to the decreasing availability of garbage for feed, resulting from more stringent regulations covering the feeding of garbage to hogs.

During the next few years, the pressure of outward growth from the Los Angeles metropolitan area is expected to create a high demand for additional urban land in the Upper Santa Clara Valley. Steady reductions in farm acreage are anticipated as a result of this demand, and by 1990 it is expected that agriculture will be virtually eliminated as an economic activity within the agency. The projected decline in farm acreage would not be alleviated by the introduction of imported water from the State Water Project because the probable cost of imported water would exceed the payment

capacity of most adaptable crops for water service. It was therefore concluded that farm acreage would not receive imported water from the State Water Project. Nevertheless, it was necessary to make projections of irrigated farm acreages in the Upper Santa Clara Valley to determine the extent to which agriculture would draw upon local supplies, since this has a direct bearing on future demands for imported water.

In making projections of irrigated crop acreages in the Upper Santa Clara Valley area, several influencing factors were given consideration, including land availability and urban encroachment, climatic conditions, crop adaptability, and historical agricultural development patterns. Consideration of these factors led to the conclusion that irrigated agricultural acreage in that portion of the agency's area outside the detention facilities would gradually be eliminated over the next 30 years. Table 2 shows the historical and projected acreages of irrigated crops in this area for the period 1960 to 1990.

TABLE 2  
HISTORICAL AND PROJECTED ACREAGES  
OF IRRIGATED CROPS<sup>1/</sup>  
1960-1990

Crop type	:	1960	:	1970	:	1980	:	1990
Alfalfa		2,400		1,300		600		0
Truck crops		1,800		1,200		800		0
Pasture		700		400		200		0
Field crops		300		200		100		0
Miscellaneous		<u>300</u>		<u>200</u>		<u>100</u>		<u>0</u>
Total acreage		<u>5,500</u>		<u>3,300</u>		<u>1,800</u>		<u>0</u>

<sup>1/</sup> Estimates relate to area outside of Los Angeles County detention facilities.



### Nonagricultural Activities

Next to agriculture, oil production has been the most important activity in the Upper Santa Clara Valley and still constitutes a vital segment of its economy. Located within the area are about 850 producing wells, which yielded 11-1/2 million barrels of oil in 1958, amounting to about 15 percent of Los Angeles County's production. These wells are concentrated in relatively hilly sections of the valley, a location which has thus far minimized the competition for land between the petroleum industry and other urban users.

The area is also the site of seven Los Angeles County detention facilities which occupy 3,700 acres of land, house about 3,400 inmates, and employ about 500 workers. Four of these facilities are administered by the Los Angeles County Sheriff's Department. These are the Wayside Honor Rancho, which occupies about 2,800 acres of land around Castaic, the Saugus Rehabilitation Center, situated on about 600 acres of land near Bouquet Canyon, and the San Francisquito Canyon and Soledad Canyon Detention Camps, which occupy the remaining 300 acres of land. Under the supervision of a professional staff, the inmates of the Wayside Honor Rancho and the Saugus Rehabilitation Center are engaged in growing and producing a wide variety of crops and food products for jail use, thereby substantially reducing food costs to the taxpayer. The inmates of the two detention camps work on the maintenance of county roads and firebreaks and are also employed on a voluntary basis as firefighters in time of emergency. The three remaining facilities - Camp Joseph Scott, Camp Kenyon Scudder, and Camp Bouquet Canyon - are juvenile detention centers operated by the County Probation Department. Juvenile offenders at these facilities attend school, maintain the grounds, and work on reforestation projects.

Manufacturing in the Upper Santa Clara Valley was confined almost entirely to oil refining until the 1940's, when the Bermite Powder and Ordnance Company began operations there. It has been only since the 1950's, however, that other manufacturers began to take a serious interest in the area. In 1958, the Lockheed Aircraft Corporation erected a new research facility northeast of Castaic Junction to explore problems of supersonic speeds and space flight. Other plants which have moved into the valley in recent years include manufacturers of fireworks, glass, and chemical products. Data obtained from a survey conducted by the Newhall-Saugus Chamber of Commerce in 1961 indicated that more than 2,100 workers were employed by industrial plants within the agency's area.

Commercial and residential building activities have also expanded during the past few years to keep pace with the demands generated by population and industrial growth. Newhall itself is the center for local trade, but several shopping centers have been built in recent years to serve the needs of residents in outlying sections of the area. Roadside establishments, providing food and lodging to travelers also account for a significant share of the area's income.

#### Possibilities for Economic Development

Future economic growth in the Upper Santa Clara Valley will depend largely on the rate of in-migration into Southern California, the pattern of expansion of the Los Angeles urban area and a number of other factors including land availability, geographic location, availability of water, and local support for future development. The interplay of these various factors is expected to transform the area into a predominantly urban region within the next few decades.

During the past few decades, the population of Los Angeles County has been increasing at an average rate of about 200,000 persons a year. Most authorities do not expect this rate to decline substantially for at least another two decades. The effect of this growth has tended to push the limits of urban development outward from downtown Los Angeles to distances of about 35 miles. At the present time, the lands along the Upper Santa Clara Valley constitute one of the few remaining areas within a 35-mile radius of downtown Los Angeles which have not yet experienced extensive growth. The completion of the San Diego and Golden State free-ways to the northern edge of the San Fernando Valley has reduced commuting time from the agency's area to employment centers in other parts of the Los Angeles metropolitan area and has enhanced its potential for future development.

The availability and price of land will also have an important bearing on future development. Some of the land within the agency is hilly or mountainous, but there are extensive areas of relatively flat or gently sloping lands which could provide attractive sites for homes and industry. At the present time, prices of residential and industrial land in the agency's area are much lower than those in other fringe areas of the Los Angeles metropolitan complex. If this favorable price differential were to continue, it would serve as a major incentive to further growth.

The climate of opinion within the area also seems favorable to further development. About 2,000 acres of land in the area have already been zoned for commercial and industrial uses with the support of local interests, and concerted action is being taken by community leaders to support further development. As was mentioned previously, however, the rate of growth will depend to a large extent on the rate at which the Newhall Land and Farming Company develops its lands within the agency over the next three decades.



A final factor to be considered in assessing the area's potential for future development is the availability of water. Until now, ground water supplies have supported irrigated agriculture and the limited urban development of the valley. While local water supplies can support additional urban growth, supplemental water will be needed to fully meet the needs of projected development.

### Population

#### Historical Population Growth

The Upper Santa Clara Valley Water Agency area experienced a slow but steady growth in population during the first four decades of this century, aided in part by the general California land boom. Since 1940, however, population has expanded more rapidly, stimulated initially by an upswing in oil production during World War II and more recently by the opening of a number of new industrial establishments during the postwar period.

The federal census of 1960 placed the population of the Newhall Census Division at 15,550, including 3,200 inmates of the Los Angeles County detention facilities. This represented a gain of 7,500 persons since 1950 and an increase of about 11,100 since 1940. Estimates made by the Los Angeles County Planning Commission indicate that the total population of the division had grown to around 21,500 in July 1963, or 6,500 more than the 1960 total. The gain recorded during this three year period was therefore only moderately below the increase recorded during the previous ten year span. The Newhall Census Division includes nearly all of the populated areas of the Upper Santa Clara Valley Water Agency, with the exception of a small area in the easterly portion of the agency. It also includes a small concentration of population in the Val Verde-Hasley Canyon area which was outside the agency

at the time the report was prepared.<sup>1/</sup> Although the population in the latter community is not reported separately, it is probably comparable to the excluded easterly area. For this reason, the Newhall Census Division was used as the geographical area on which past and future estimates of population within the Upper Santa Clara Valley Water Agency were based.

#### Future Population Growth

Projections of future population for the Upper Santa Clara Valley Water Agency cannot be made by separate and independent analyses of factors of natural increase and in-migration applicable only to the particular area. Valid population forecasts must consider the interrelationships between adjacent areas, their resources, states of development, external and internal economic and demographic pressures and other factors.

Studies of this nature were made by the Department of Water Resources for many areas of Southern California and are reported in the department's Bulletin No. 78, Appendix D, "Economic Demand for Imported Water."

There were no specific projections made for the Upper Santa Clara Valley Water Agency, but projections were made for concentric zones within the greater Los Angeles area. These projections were based on the theory that population growth in any metropolitan area progresses in a wave-like manner from the center towards the periphery of the area. This effect results in the formation of suburbs, which eventually become densely

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<sup>1/</sup> Since the report was prepared the agency has annexed the Val Verde-Hasley Canyon area.

populated and support further growth in more distant areas. The projections made in Bulletin 78 and its Appendix D were used as guides in forecasting future growth in the Upper Santa Clara Valley Water Agency but were updated to take into consideration the results of the 1960 census of population, which were not available during the Bulletin No. 78 studies.

The population of the Upper Santa Clara Valley Water Agency is expected to expand at a moderate rate until the late 1960's when the rate of growth is expected to pick up speed. While much of this growth is expected to stem from the development of the area as a residential suburb of the San Fernando Valley, a large part is expected to be stimulated by the area's own industrial development, which has recently shown a promising start. The historical and projected populations of the Upper Santa Clara Valley Water Agency are shown in Table 3 and in Figure 1. The populations of the Los Angeles County detention facilities are shown separately because of their size in relation to the total population of the area. Estimates of the future inmate population of the county detention facilities were based on data supplied by the Regional Planning Commission.

TABLE 3  
HISTORICAL AND PROJECTED POPULATIONS  
1940-1990

Year	: Resident : population	: Inmates of county : detention facilities:	: Total : population
<u>Historical</u>			
1940	3,956	451	4,407
1950	6,984	1,061	8,045
1960	12,379	3,171	15,550
1963	18,300	3,200	21,500
<u>Projected</u>			
1970	45,000	3,500	48,500
1980	110,000	3,500	113,500
1990	180,000	3,500	183,500

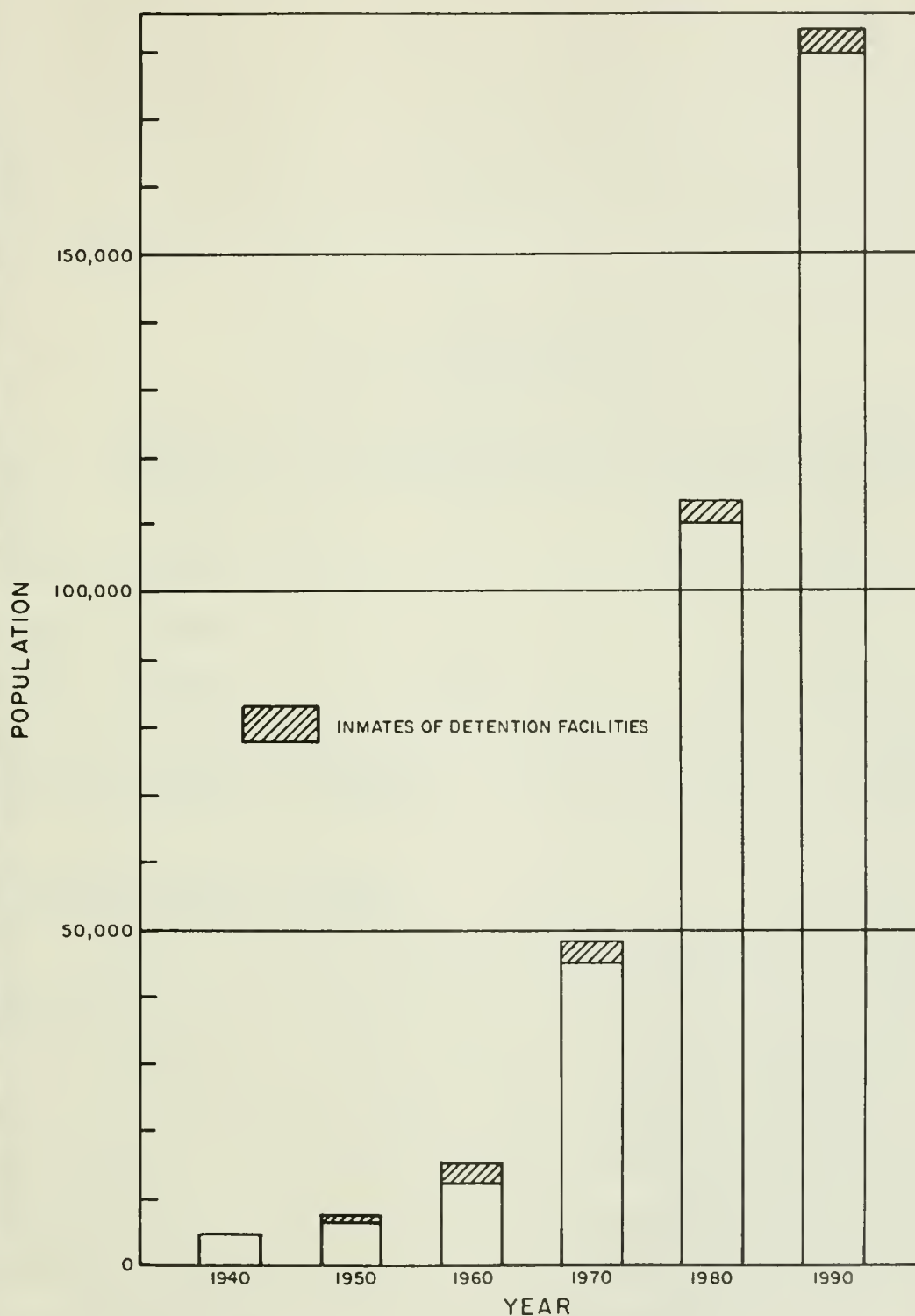
#### Future Land Use

Estimates of future urban, agricultural, and public land use in the Upper Santa Clara Valley Water Agency area through 1990 were made by the department in order to determine whether future development, as projected in this report, would be within the limits of available land resources.

#### Urban Land Requirements

Estimates of future land requirements for urban use outside the detention facilities were computed from projections of population and population densities in this portion of the agency's area. The experience in most urban areas has been that, as population increases, urban densities also increase, up to certain levels. It was assumed that this pattern would also occur in the Upper Santa Clara Valley Water Agency area;

FIGURE 1



HISTORICAL AND PROJECTED POPULATIONS OF THE UPPER  
SANTA CLARA VALLEY WATER AGENCY  
1940-1990





accordingly, projections of increased urban population densities were made for the area outside the detention facilities, using 1960 population and urban land use data as a base. These projections were applied to projections of population outside the detention facilities to arrive at estimates of the total urban land requirements in this portion of the agency. These requirements are shown in Table 4.

TABLE 4  
URBAN LAND REQUIREMENTS<sup>1/</sup>  
1960-1990

Year	Resident population	Urban population density, persons per acre	Urban land requirements in acres
1960	12,379	3.4	3,700
1970	45,000	5.0	9,000
1980	110,000	7.2	15,300
1990	180,000	8.0	22,500

<sup>1/</sup> Based on estimates of population and land use outside of Los Angeles County detention facilities.

#### Agricultural Land Requirements

Land requirements for agricultural purposes within the Upper Santa Clara Valley area are made up of actual crop land requirements for both irrigated and nonirrigated farming, fallow land requirements, and an allowance for farm lanes, borders, fences, windbreaks and other necessary but nonproductive farm land. The acreage in irrigated farms and nonirrigated farms outside the detention facilities was projected to 1990 by making use of historical trends, land availability, water availability, (in the case of irrigated farms) and other physical and economic criteria. Fallow land requirements were determined by considering local requirements of the various crops grown in the areas in question.

The department's estimates of crop land requirements and fallow land requirements were added together to find a total farm land acreage, which was then increased by approximately five percent to provide for lands given up to necessary but nonproductive farm acreage. The sum of projected crop acres, fallow land requirements, and farm lane, fence and border area allowances represents the total land requirement for agriculture in that portion of the agency outside of the county detention facilities. This land requirement, projected through 1990, is shown in Table 5.

TABLE 5  
FARM LAND REQUIREMENTS<sup>1/</sup>  
1960-1990

Type of land requirement	Acres			
	1960	1970	1980	1990
Irrigated farm land	5,500	3,300	1,800	0
Nonirrigated farm land	2,300	1,500	700	0
Fallow and idle land	2,300	1,600	600	0
Farm lanes, fences, borders, etc.	<u>500</u>	<u>300</u>	<u>100</u>	<u>0</u>
Total farm land requirement	<u>10,600</u>	<u>6,700</u>	<u>3,200</u>	<u>0</u>

<sup>1/</sup> Estimates relate to area outside of Los Angeles County detention facilities.

#### Total Land Use

Total land use as of 1960 and as projected through 1990 was determined by adding the department's projections of urban and agricultural land requirements outside the detention facilities to the area currently occupied by these facilities. It was assumed that institutional



land use would remain unchanged during this period of time. These data are summarized in Table 6. It will be noted from Table 3 that population is expected to increase about 12 times between 1960 and 1990.

During the same period, the percentage of developable land actually put into use is expected to increase from 35 percent to 51 percent, as is shown in Table 6. Thus it appears that land availability will have no restrictive effect upon economic development and population growth in the Upper Santa Clara Valley area over the next three decades.

TABLE 6  
PRESENT AND PROJECTED TOTAL LAND USE  
1960-1990

Type of land use	Acres of land use			
	1960	1970	1980	1990
Urban land	3,700	9,000	15,300	22,500
Agricultural land	10,600	6,700	3,200	0
County detention facilities	<u>3,700</u>	<u>3,700</u>	<u>3,700</u>	<u>3,700</u>
Subtotal, land in use	18,000	19,400	22,200	26,200
Unused developable land	<u>33,500</u>	<u>32,100</u>	<u>29,300</u>	<u>25,300</u>
Total irrigable or habitable land	<u>51,500</u>	<u>51,500</u>	<u>51,500</u>	<u>51,500</u>
Percentage of irrigable or habitable land in use	35.0	37.7	43.1	50.9



### CHAPTER III. DEMAND FOR PROJECT WATER

Over the past decade, the use of agricultural water within the agency has remained relatively constant, while urban water use has been steadily rising. The demand for agricultural water is expected to decline over the next 30 years as the remaining farm lands outside the detention facilities succumb to urban development, but urban water use is expected to increase to such an extent that it will more than offset the decrease in agricultural water demands.

Future supplemental water requirements of the Upper Santa Clara Valley Water Agency were determined by taking the difference between local water supplies and estimates of the total urban, agricultural, and institutional water requirements within the agency. After due consideration of the ground water basin, the rates of extraction, and relative costs of ground water and of State Project water, it was assumed that extractions from the ground water basin would remain at the present level of about 25,000 acre-feet per year through 1990. Estimates of the agency's future water requirements were derived by applying appropriate unit values of urban and agricultural water use to the projections of population outside the county detention facilities and adding the resultant totals to projections of future water needs within the county detention facilities.

#### Present and Future Unit Water Use

##### Unit Values of Urban Water Use

Estimates of unit values of urban water use for the Upper Santa Clara Valley Water Agency were based on studies made by the department for its Bulletin No. 78, "Investigation of Alternative Aqueducts to Serve Southern California," and are presented in Table 7. Unit values of applied water use are presented rather than unit values of consumptive use since return flows

in the area are not generally available for reuse within the area. These return flows, if they could be used, would reduce water requirements from the unit values of applied water to the unit values of consumptive use, but under present conditions, the net water requirements of both urban and agricultural areas within the agency are actually gross water requirements and are therefore based on the unit values of applied water.

TABLE 7  
ESTIMATED PRESENT AND FUTURE UNIT VALUES  
OF APPLIED URBAN WATER USE  
1960-1990

Year	: Gallons per capita : per day	: Acre-feet per capita : per year
1960	198	.222
1970	210	.235
1980	220	.246
1990	230	.258

#### Unit Values of Agricultural Water Use

For many years the department and its predecessor agencies have studied unit values of water use for irrigated agriculture in different areas of the State, including the area in which the agency is located. Values of use for this area have been printed in several reports published by the department and its forerunners. The unit values for irrigation water used in this study were taken from the department's Bulletin No. 78, Appendix D and are shown in Table 8. The unit value for miscellaneous crops was based on the weighted average of unit values for all other crops in the agency.

TABLE 8

ESTIMATED ANNUAL UNIT VALUES OF APPLIED  
AGRICULTURAL WATER USE, IN FEET OF DEPTH

Crop	:	Unit values of applied water use
Alfalfa		3.4
Pasture		3.6
Truck crops		3.4
Field crops		1.7
Miscellaneous crops		3.3

Present and Future Water UtilizationMunicipal and Industrial Use

Estimates of present and future water use for municipal and industrial purposes in that portion of the agency outside the county detention facilities were determined by applying the appropriate estimates of per capita water use to projections of resident population for each decade of the study to 1990. Table 9 indicates the total municipal and industrial water requirements in the designated portion of the agency's area over the next 30 years.

TABLE 9  
PRESENT AND PROJECTED URBAN WATER REQUIREMENTS<sup>1/</sup>  
1960-1990

Year	Population	Unit values of applied urban water use in acre-feet per capita per year	Total urban water requirements in acre-feet per year
1960	12,379	.222	2,700
1970	45,000	.235	10,600
1980	110,000	.246	27,100
1990	180,000	.258	46,400

<sup>1/</sup> Estimates relate to area outside of Los Angeles County detention facilities.

#### Agricultural Use

Estimates of present and future water use for irrigation purposes in the area outside the county detention facilities were determined by applying the appropriate unit values of water use in Table 8 to projections of irrigated crop acreages in the area which were presented in Table 2. Table 10 indicates the present and future irrigation water requirements in that portion of the agency outside the detention facilities from 1960 to 1990.

TABLE 10  
PRESENT AND PROJECTED AGRICULTURAL  
WATER REQUIREMENTS<sup>1/</sup>  
1960-1990

Year	:	Acres in	:	Requirements
	:	cultivation	:	in acre-feet
1960		5,500		18,300
1970		3,300		10,900
1980		1,800		6,000
1990		--		--

<sup>1/</sup> Estimates relate to area outside of Los Angeles County detention facilities.

#### Institutional Water Requirements

It was assumed that land and water use within the area now occupied by the county detention facilities would remain about the same as the existing pattern of use during the 30-year projection period covered by this report. There are presently about 750 acres of irrigated agricultural land within this area, and the consultants Bookman and Edmonston estimated in their report, previously mentioned, that the institutional applied agricultural and domestic water requirements amount to about 3,400 acre-feet per year. This figure was used in arriving at estimates of the agency's total water requirements.

#### Local Water Supplies and Ground Water Overdraft

Water supplies for urban and agricultural activities in the agency's area are derived almost entirely from local ground water sources. The ground water basin underlying the Upper Santa Clara River Valley consists mainly of alluvial materials which extend to a depth of



200 feet in the main part of the valley and to a somewhat shallower depth in the adjacent canyon areas to the east. The extent of this basin within the agency's area is shown on Plate 2 "Ground Water Basin and Proposed Main Local Distributary."

The alluvial materials in the main portion of the valley are underlain by the Saugus and Mint Canyon formations, portions of which constitute a deeper water-bearing zone. Wells have been drilled to depths of 900 feet into this deeper zone and have produced water of good quality. The alluvial materials of the main ground water basin are separated from the deeper water-bearing zones by relatively impermeable materials, and there appears to be little or no connection between the two zones. The Saugus and Mint Canyon formations crop out in the hills in the southern part of the area. Percolation of rainfall into these formations occurs only in this small outcrop area and probably constitutes the only source of fresh water replenishment to the deep zone. The amount of water percolating to this deep zone is therefore thought to be relatively small, and as a result, it is believed that pumping will seriously deplete the water in this zone unless it is restricted.

The ground water basin underlying the river is recharged by flows from the Santa Clara River System, precipitation on the valley floor, and percolation of return waters from irrigation or urban use. While percolating waters contribute to the recharge of ground water supplies, the high mineral content of these waters increases the salinity of the ground water basin unless an equal or greater amount of minerals is removed in solution by the flushing action of ground water flow through the basin.

While historical data indicate that ground water quality in the Upper Santa Clara Valley was generally satisfactory for urban and

agricultural uses before 1950, the quality of local water supplies has deteriorated significantly since that time. Under present conditions, more salts are being added to ground waters of the agency than are being removed from them, thereby causing an accumulation of salts in the basin.

The import of salts into the basin is due to the high mineral content of surface inflow, the disposal of saline urban waters into the ground water basin from sewage and surface disposal, and the natural processes of evaporation and transpiration on irrigated lands. In agricultural uses, plants consume the water but remove little of the salts, leaving the latter in the soil of the root zone to be washed downward by unconsumed irrigation water.

The salinity level of the basin is controlled somewhat by ground water outflow and by extractions which are conveyed to irrigated lands outside the area. As a result of these processes, a large volume of mineral salts are exported from the area, and the rate of salt accumulation in the local ground water basin has been slowed. The construction of a new sewage plant near Saugus has also tended to retard the further impairment of water quality in the area. Nevertheless, the mineral content of ground water in portions of the agency's area already approaches or exceeds the limits established by the United States Department of Public Health. These standards stipulate that water used for drinking and culinary purposes should not contain more than 500 parts per million of total dissolved solids and that the use of water containing more than 1,000 parts per million should be prohibited. These standards have been incorporated in the California Health and Safety Code and are used by the California State Board of Public Health as a guide in granting water supply permits. The concentration of total dissolved solids in the local water supply ranges from about 400 parts per

million to more than 1,600 parts per million and averages about 600 parts per million, according to studies made by consulting engineers.

If the quality of ground waters in the area is not to deteriorate further, additional steps must be taken to bring salt input and output into balance; otherwise, the ground waters will eventually become too saline for use. The blending of imported water with local water supplies may be one practical means of achieving a more favorable salt balance in the area. One of the water quality objectives set forth in the water supply contracts between the State and the various contracting agencies provides that the average amount of total dissolved solids in the imported water supply should not exceed 220 parts per million during any 10-year period. If this objective is attained, the blending of local water supplies with imported water would result in a significant reduction in the mineral content of water which could be provided to urban users in the area and thereby hold down the concentration of salts returned to the local ground water basin. Continued observations of the quality of local supplies should be made, however, to provide a basis for further corrective action, if needed.

The quantity of ground water available in the agency's area on a sustained basis was estimated from a study of recorded water level fluctuations at monitored wells. While available data on local hydrology is limited, the estimate derived from these records was considered adequate for purposes of determining the need for imported water supplies. Data on water levels at selected wells in the Newhall-Saugus area were presented in Harold Conkling's report entitled "Water Supply, Newhall Ranch," published in January 1948. The data contained in this report were updated by the consulting engineering firm of Bookman and Edmonston.

According to these data, water levels in wells located near Castaic Junction and in the downstream portions of the area have exhibited little change during the past 30 years. Water levels at wells in the upstream portions of the agency, however, have declined significantly in recent years and at the present time have reached depths of 40 to 100 feet below ground surface. The depth of water bearing alluvium in this area is rather shallow and as a result, a relatively small quantity of ground water is available. Increases in ground water use in this portion of the agency can therefore be expected to result in either reduced production or complete failure of wells.

#### Demand for Project Water

Based upon the foregoing factors, it was concluded that the present level of ground water use in the Upper Santa Clara Valley Water Agency is approximately equal to the safe yield of the local ground water supply from a water quantity standpoint. Since there are no surface supplies within the district which could be economically developed, and since any significant increase in ground water use would aggravate existing water quality problems and contribute to the depletion of ground water reserves, a supplemental water supply must be obtained to meet the projected increase in the area's total water requirements.

#### Supplemental Water Requirements

Supplemental water requirements for the Upper Santa Clara Valley Water Agency were determined by comparing departmental projections of available local water supplies with projections of future water needs. Having developed estimates of both urban and agricultural water requirements for the area outside the county detention facilities and projections of

future water needs for the area occupied by these facilities, and proceeding on the assumption that the maximum local water supply available for future use would remain at the present level of about 25,000 acre-feet per year, it was possible to arrive at estimates of the supplemental water requirements of the agency. These requirements are shown in Table 11.

TABLE 11  
PRESENT AND FUTURE TOTAL  
AND SUPPLEMENTAL WATER REQUIREMENTS  
1960-1990

Item	:	1960	:	1970	:	1980	:	1990
Urban water requirements <sup>1/</sup>		2,700		10,600		27,100		46,400
Agricultural water requirements <sup>1/</sup>		18,300		10,900		6,000		--
Institutional water requirements		<u>3,400</u>		<u>3,400</u>		<u>3,400</u>		<u>3,400</u>
Total water requirements		<u>24,400</u>		<u>24,900</u>		<u>36,500</u>		<u>49,800</u>
Estimated local water supplies		25,000		25,000		25,000		25,000
Supplemental water requirements		<u>--</u>		<u>--</u>		<u>11,500</u>		<u>24,800</u>

<sup>1/</sup> Estimates relate to area outside of Los Angeles County detention facilities.

#### Buildup of Demand for Project Water

From the supplemental water requirements shown in Table 11, which were available to the signators at the time of contract execution, a schedule of the demand for project water in the Upper Santa Clara Valley Water Agency was constructed and incorporated into the agency's water supply contract with the State. As was mentioned previously,



estimates of the demand for project water were based on the assumption that imported water deliveries would be used solely for urban purposes. Table 12 shows the annual amounts of water to be delivered under the contract to the Upper Santa Clara Valley Water Agency, from the year of initial water delivery in 1972, to 1990, the year of maximum delivery.

TABLE 12  
DEMANDS FOR PROJECT WATER  
1972-1990

Year	: Total annual amount, in acre-feet
1972	1,000
1973	2,600
1974	3,900
1975	5,200
1976	6,500
1977	7,800
1978	9,100
1979	10,400
1980	12,000
1981	13,100
1982	14,200
1983	15,300
1984	16,400
1985	17,500
1986	18,600
1987	19,700
1988	20,800
1989	21,900
1990	23,000





#### CHAPTER IV. COST OF WATER SERVICE FROM THE STATE WATER PROJECT

The cost of water service from the State Water Project to the Upper Santa Clara Valley Water Agency is dependent upon the agency's allocated portion of construction, operation and maintenance costs of the California Aqueduct, the cost accruing from the Delta Water Charge, and the cost of local conveyance systems. Local conveyance systems will be constructed and paid for by the agency itself. Construction of the State Water Project, on the other hand, will be done by the State and will be financed with monies from the California Water Fund and from the sale by the State of general obligation bonds authorized under the Water Resources Development Bond Act of 1959.

Under the standard contract for water service, each contracting agency undertakes an obligation to repay the State for its share of costs associated with water deliveries from the State Water Project. The allocation of costs of the transportation facilities to each agency is made on the proportionate use of facilities concept, based on the relative size of maximum entitlement, the peaking capacity reserved in the aqueduct for the agency, and the distance from the Sacramento-San Joaquin Delta to the reach of aqueduct wherein the agency's turnout structures are located.

##### State Water Project

The Upper Santa Clara Valley Water Agency's share of State Water Project costs can only be tentatively estimated at the present time. However, based on information now known and on assumed levels of participation in the aqueduct facilities by all probable contractors, cost allocations were made for the agency for a maximum entitlement of 23,000 acre-feet. The basic assumptions used in this cost allocation were that repayment for

the main aqueduct facilities would commence in 1964, and that state and local conveyance facilities would be designed with a capacity sufficient to deliver 11 percent of the agency's annual entitlement during any one month.

#### Physical Features of State Water Project

The transportation facilities of the State Water Project which will be utilized to serve the Upper Santa Clara Valley Water Agency are the California Aqueduct from the Delta to the bifurcation of the East and West Branches and the West Branch from the bifurcation to Castaic Reservoir. The major features of the West Branch consist of the pumping plant at Fairmont, about 15 miles of tunnels and pipelines, and Castaic Reservoir. The agency is well situated with respect to the State Water Project since the terminus of the West Branch at Castaic Reservoir is located at the northwest edge of the agency's service area, thus substantially reducing the cost of local facilities required for delivering water to the ultimate consumer.

#### Cost of Project

The total capital costs of the transportation portion of the State Water Project to the agency are expected to amount to about \$7,502,000 for a maximum annual entitlement of 23,000 acre-feet. This would require a maximum repayment of principal and interest by the agency of \$349,228 per year. The annual capital repayment would be less than the above figure in years prior to 1986 and subsequent to 2013. Operation and maintenance costs for the transportation facilities would be assessed in two ways. An annual minimum operation, power, and replacement charge would be assessed regardless of water deliveries, and a

variable operation, maintenance, power and replacement charge would be levied depending on water actually delivered to the Upper Santa Clara Valley Water Agency. The final component of the agency's annual cost for water deliveries would be the Delta Water Charge, based on the schedule of estimated annual water deliveries included in the agency's water service contract. As of the time of this study, the Delta Water Charge was estimated to increase from \$4.99 per acre-foot in the early years of water service to an estimated \$6.78 per acre-foot in 1978.

Table 13 indicates the estimated annual component costs of water service from the State Water Project to the Upper Santa Clara Valley Water Agency for specific years during the period of buildup in water demand to 1990, the year of maximum demand.

TABLE 13

ANNUAL CHARGES FOR WATER SERVICE  
FROM THE STATE WATER PROJECT  
1964-1990

Year:	Estimated	Transportation charge				
	annual water:	Minimum <sup>1/</sup>	Variable <sup>2/</sup>			
	delivery	Capital	operation	operation	Delta	Total
	in	cost	and	and	Water	payment
	acre-feet	component	maintenance	maintenance	Charge	to State
1964	--	\$ 16,372	\$ --	\$ --	\$ --	\$ 16,372
1970	--	235,923	11,951	--	--	247,874
1980	12,000	347,261	52,025	215,667	81,354	696,307
1990	23,000	349,228	55,006	492,791	155,928	1,052,953

1/ Minimum operation, maintenance, power and replacement charges are those necessary to maintain the system even though there are no water deliveries to the agency.

2/ Variable operation, maintenance, power and replacement charges are those associated with moving water to the agency.

### Local Distribution Facilities

In order to distribute water from the State Water Project, the Upper Santa Clara Valley Water Agency would be required to build a feeder system connecting local facilities to the State Aqueduct. Since the agency plans to act as a wholesaler of the imported water supply, it was assumed that the agency would construct and operate a main conveyance conduit which would connect with local conveyance facilities constructed and operated by the agency's customers. Both the department and the agency's engineering consultants have made preliminary studies of the route and costs of the main conveyance system. While the route studied by the department and described in this report is not the same as that proposed by the agency's consultants, the costs are comparable.

### Physical Features of Local Distribution Facilities

The main feature of the local conveyance facilities, under what seems to be an economical and feasible system, would be about 11 miles of pressure conduit running from the agency's turnout works at Castaic Reservoir south through Castaic Junction and Newhall. No relift pumping would be necessary along this route since there would be sufficient head at the reservoir to force the water to the Newhall terminus. Any relift necessary at the various takeoffs from the main local conveyance facilities would be provided by the local distributor. The alignment of the main conveyance system described in this report is shown on Plate 2.

### Cost of Local Distribution Facilities

An estimate of construction costs for the described local conveyance system was made for this report using the agency's maximum annual entitlement of 23,000 acre-feet as a basis for design. This estimate does

not include the costs associated with turnout structures and local storage facilities. It was assumed that construction of the local conveyance system would be completed by 1972, the year of the first water deliveries to the area. Repayment of capital costs was assumed to be accomplished by 40-year, five percent bonds instead of the 40-year, four and one-half percent bonds used in the consultant's report. Table 14 shows the estimated cost components of the local conveyance system.

TABLE 14

ESTIMATED ANNUAL COMPONENT COSTS OF  
LOCAL DISTRIBUTION FACILITIES  
1972-1990

Year	: Delivery : : acre-ft/year :	: Capital cost : : \$ :	: Annual capital : : repayment : : \$/year :	: Annual cost : : \$/year :	: Total : : annual cost : : \$/year :
1972	1,000	\$2,000,000	\$116,560	\$20,000	\$136,560
1980	12,000	--	116,560	20,000	136,560
1990	23,000	--	116,560	20,000	136,560

The costs of water service shown above have been translated into per acre-foot costs for purposes of comparison with local unit water costs. These costs do not represent the actual average water cost from the State Water Project in any given year, but instead are equivalent unit rates -- those charges that, if applied to each acre-foot of entitlement during the repayment period, will return all costs to the State at the project interest rate.

Table 15 shows the equivalent unit costs of various components of service from the State Water Project, including the costs associated with local conveyance facilities. Since no deliveries of imported water are



contemplated to be made for any purpose on land holdings in excess of 160 acres, surcharges on excess lands were not judged to be a factor in imported water costs to the agency.

TABLE 15

ESTIMATED UNIT COSTS OF WATER SERVICE FROM  
THE STATE WATER PROJECT AND  
LOCAL DISTRIBUTION FACILITIES

Components of cost	: Equivalent unit rate, : \$/acre-foot
<u>State Water Project</u>	
Operation and maintenance expense	\$23.56
Delta Water Charge	<u>6.67</u>
Subtotal for system operation	30.23
Capital cost of transportation expense	<u>22.50</u>
Total of cost components for State Water Facilities	<u>\$52.73</u>
<u>Local Conveyance Facilities</u>	
Estimated operation, maintenance and replacement expense	\$ 1.46
Estimated capital cost expense	<u>10.38</u>
Total of cost components for local conveyance facilities	<u>\$11.84</u>
Total of cost components for all water facilities	<u>\$64.57</u>
Total, all operating components	<u>\$25.02</u>

Joint Local Distribution Facilities

Tentative plans of the Metropolitan Water District call for the construction of a main distribution line from the terminus of the State Water Project at Castaic Reservoir to the San Fernando Valley via

the Santa Clara Valley to supply project water to Metropolitan's distribution system. It may be possible for the Upper Santa Clara Valley Water Agency and the Metropolitan Water District to develop an agreement providing for joint participation in this line in return. Bookman and Edmonston, the agency's engineering consultants, estimate that the agency would be required to contribute about \$500,000 as the agency's share of this line, indicating a cost saving of about \$1 million in capital costs as compared to the plan for independent construction of a local conveyance conduit described previously in this chapter. Therefore, the possibility of such an agreement should be investigated.





## CHAPTER V. ECONOMIC JUSTIFICATION AND FINANCIAL CAPABILITY

Important and basic elements relative to the execution of a water service contract between the State and the Upper Santa Clara Valley Water Agency are the economic justification of entering into such a contract and the financial capability of the district to perform the contract. Economic justification proves the worth of the proposed water service, whereas financial capability indicates the ability on the part of the agency to repay the costs of water importation.

### Economic Justification

A project is economically justified if, as a minimum, the estimated benefits exceed the total economic costs and if each project purpose provides benefits at least equal to its allocated costs. In analyzing the economic justification of a water importation project for urban purposes, definite criteria have not been developed. Often, economic justification has been shown by demonstrating a need for additional water supplies, that alternative sources of water would be more costly, and that the costs of the project are not significantly greater than existing water costs. Where no alternatives are available, economic justification for urban areas has been shown if the cost of water importation is not unreasonably high as compared to the cost of present water sources, the area's economic development would be restricted without additional water supplies, and the repayment of the necessary expenditures for the water supply is financially feasible.

Water service from the State Water Project to the Upper Santa Clara Valley Water Agency is contemplated only for urban purposes; accordingly, the benefits accruing from municipal and industrial water use were

compared with project charges in order to determine if the project was economically justified.

One measure of economic justification is whether the project water can be delivered at costs not unreasonably above present water costs in the area under consideration and whether the future economic development of the area is dependent on water importations and would not occur if imported water were not available.

Under the forecasted conditions of future growth, the Upper Santa Clara Valley Water Agency would supply about 43 percent of the urban water needs of its area by 1990 with imported water. The present cost of water production in the district was not determined, but the average cost to ultimate users is presently about \$97 per acre-foot. While the total cost of imported water to the ultimate consumer is not yet known, it is expected that this cost will be close to the level of local water costs since the total cost of imported water to local distributors is expected to amount to about \$66 per acre-foot. The economy and population of the district have increased significantly during the past ten years under current water cost conditions, indicating that the benefits accruing from local water supplies have exceeded the cost of water to users in the area. Since the difference in cost between local and imported water to the ultimate user is expected to be relatively small, it is probable that economic development of the area would continue in the future under water costs resulting from water importation and that benefits accruing to the area from water importation would exceed water costs. On this basis, it may be concluded that water importation for urban purposes from the State Water Project would be economically justified.

### Financial Feasibility

Financial feasibility is a showing that the public credit of the agency contracting with the State will be strong enough to reasonably support and repay the long-term debt which it must necessarily undertake to finance water facilities under the contract. Since the cost of the facilities to the Upper Santa Clara Valley Water Agency will be relatively high, it must be shown that the agency will not be unduly burdened by debt during the project repayment period. Furthermore, it must be shown that the methods of obtaining funds for debt repayment are practical and reasonable.

### Present and Projected Assessed Valuation

A necessary part of a study of financial feasibility is to select a base that the area can use to determine its ability to repay its obligations. In this case, the obligation is to repay capital costs, interest, and operation, maintenance, and replacement costs of an imported water supply as well as the cost of local distribution and conveyance works. A principal base for determining repayment ability is the assessed valuation of the area. as a result of increased population and economic activity, and also because of inflationary trends, the assessed valuation of property within the Upper Santa Clara Valley Water Agency has risen by more than 30 percent during the past six years. During the 1962-63 fiscal year, the assessed valuation of property in the area amounted to about \$51,600,000. The estimated market value of this property was about \$210 million. Table 16 shows the department's estimate of the growth of assessed valuation in the area under consideration from 1957 to the present.

TABLE 16

## HISTORICAL ASSESSED VALUATIONS

Fiscal year :	Assessed valuation	: Increase over previous year
1957-58	\$38,916,630	-
1958-59	40,503,870	4.1%
1959-60	42,317,240	4.5
1960-61	46,141,610	9.0
1961-62	48,917,930	6.0
1962-63	51,550,830	5.4

Assessed valuation of property in the agency will continue to increase in the next thirty years as the agency's population and economic development continues to expand. For purposes of analyzing the financial capability of the agency to pay for service from the State Water Project, it was necessary to make projections of future assessed valuations of the area. These projections were made for two major categories of property: (1) mineral rights for all property within the agency area and property not susceptible to development because of physical features; and (2) property which is developed or will be developed to urban use and which is directly affected by economic growth. Projections for these same categories of assessed valuations in the area were made by the consultants Bookman and Edmonston.

The total assessed valuation of all mineral rights in 1962-63 was estimated to be about \$15,000,000 and the valuation of nondevelopable lands was estimated to be about \$5,000,000, bringing the total to about \$20,000,000 during that period. Projections of these valuations were based on the assumption that mineral right values would decline because of extractions and that there would be no increases in land values in the nondevelopable category.

Projections of assessed valuations for the developable land exclusive of mineral rights were made by applying the 1962-63 per capita assessed value of this type of property to projections of population. The per capita value of \$1,900 employed in these estimates was obtained by dividing the current population of the agency into the current value of property remaining in the agency after the total value of property in the first category had been removed. The projections are expected to prove conservative since future per capita values will assuredly increase in line with projected urban development. The projected assessed valuations made by the department in accordance with this procedure are shown in Table 17.

TABLE 17

PRESENT AND PROJECTED ASSESSED VALUATIONS  
1962-1990  
(in millions of dollars)

Fiscal year	Population <sup>1/</sup>	Assessed valuation		Total
		Urban <sup>2/</sup> development	Mineral rights and nondevelopable lands <sup>3/</sup>	
1962-63	16,900 <sup>3/</sup>	\$ 32.0	\$20.0	\$ 52.0
1969-70	45,000	36.0	17.0	103.0
1979-80	110,000	209.0	14.0	223.0
1989-90	180,000	342.0	10.0	352.0

<sup>1/</sup> Excludes inmates of Los Angeles County detention facilities.

<sup>2/</sup> Based on an assessed valuation of \$1,900 per capita.

<sup>3/</sup> As estimated by Los Angeles County Planning Commission.

Present and Projected Bonded Indebtedness

The Upper Santa Clara Valley Water Agency, as a water service entity, has no bonded indebtedness at the present time. However, the area encompassed by the agency has a current bonded indebtedness of \$4,252,275.



which is about nine percent of the area's assessed valuation. School bonds account for nearly 62 percent of this indebtedness. Table 18 indicates the present bonded indebtedness for which property owners in the Upper Santa Clara Valley Water Agency are responsible.

TABLE 18

PRESNT BONDED INDEBTEDNESS  
BY TYPE OF DISTRICT<sup>1/</sup>

Type of district	: Bonded indebtedness in the : Upper Santa Clara Valley : Water Agency Area
Los Angeles County	\$ 252,706
Schools	2,635,177
Flood Control	923,592
Hospital	2,319
Sanitation	195,000
Water	<u>243,481</u>
Total	<u>\$4,252,275</u>

<sup>1/</sup> As of June 30, 1962.

Although assessed valuations have been increasing in the area, the ratio of bonded indebtedness has shown relatively little change in the past few years. Table 19 shows the percentage of bonded indebtedness to assessed valuations in the area from 1958 to the present.



TABLE 19

## HISTORICAL BONDED INDEBTEDNESS

Year <sup>1/</sup>	Bonded indebtedness	Debt as percentage of assessed valuation
1958	\$3,396,308	8.7
1959	3,953,635	9.8
1960	4,021,641	9.5
1961	4,211,588	9.1
1962	4,252,275	8.7

<sup>1/</sup> As of June 30.

#### Analysis for Financing Future Obligations

The feasibility of serving the Upper Santa Clara Valley Water Agency with imported water from the State Water Project depends principally upon the financial ability of the agency to repay the costs of water service. Therefore, an analysis of repayment ability was necessary to determine the probable repayment schedule required to pay for the agency's allocated share of State Water Project costs. It was also necessary to arrive at estimates of present and future assessed valuations, current and future debt for other public works, prevalent tax rates, and the additional tax rates which might be necessary to pay for imported water.

For this report, an investigation was made of many facets of the agency's present financial situation, in order to provide a basis for analyzing its future financial position. The data gathered in this investigation are presented in detail in Appendix A of this report, "Credit Analysis of the Upper Santa Clara Valley Water Agency." The data in this appendix pertain to historical and current conditions, and do not attempt to measure the impact on the service area of the proposed costs of imported water.

Comparison with Assessed Valuations. The present bonded indebtedness of the Upper Santa Clara Valley Water Agency is approximately nine percent of its assessed valuation. Although it is difficult to determine the extent to which the district will incur bonded indebtedness in the future, it was estimated that the percentage of bonded debt to assessed valuation would increase to 13 percent by 1970 and remain constant thereafter. This debt will be augmented by the additional debt incurred by the agency for service from the State Water Project.

From the schedules of estimated allocated construction costs, costs of local conveyance facilities, and assessed valuations, the total debt outstanding in any year on the transportation portion of the State Water Facilities and local distribution facilities were determined and calculated as a percentage of projected assessed valuation within the agency area. These data are shown in Table 20.

TABLE 20

SUMMARY OF CAPITAL REPAYMENT OBLIGATIONS  
RESULTING FROM WATER SERVICE

Year	Assessed valuation : (\$000)	Outstanding debt					
		Local conveyance facilities		Transportation of State Water Facilities		Total attributable to water service	
		Amount	Percent of	Amount	Percent of	Amount	Percent of
		(\$000)	assessed valuation	(\$000)	assessed valuation	(\$000)	assessed valuation
1970	\$103,000	\$ 1,496	1.4%	\$6,049	5.9%	\$7,545	7.3%
1980	223,000	1,791	0.8	6.752	3.0	8,543	3.8
1990	352,000	1,452	0.4	5,837	1.7	7,289	2.1

In the year of the highest debt ratio, occurring in about 1970, the total obligation for water service and other public debt would be about 20 percent. This ratio is considerably less than that currently existing

in the City of Los Angeles, excluding the effect of the debt arising from the Metropolitan Water District's water service contract with the State. Thus, even at a maximum, the agency's ratio of debt to assessed valuation would appear to be reasonable. The debt ratio would decline each year after the maximum year.

Levels of Ad Valorem Taxation. Tax rates in the Upper Santa Clara Valley Water Agency area have tended to increase in the past few years, as has been the case in most areas of Southern California. The weighted average tax rate of the agency area at the present time is about \$7.05 per \$100 assessed valuation. Table 21 indicates the weighted average tax rates and their component parts in the agency area for the past six years.

TABLE 21

WEIGHTED AVERAGE  
AD VALOREM TAX RATE COMPONENTS

Year	Tax rate (per \$100 assessed value)			
	General <sup>1/</sup> county	School districts	Special districts	Total rate
1957-58	\$2.05	\$2.53	\$0.62	\$5.20
1958-59	2.13	3.13	.63	5.89
1959-60	2.25	3.25	.74	6.24
1960-61	2.23	3.48	.70	6.41
1961-62	2.26	3.46	.69	6.41
1962-63	2.27	3.91	.87	7.05

<sup>1/</sup> Includes Road District No. 5 and County Public Library.

Under the repayment schedule developed during contract negotiations, the Upper Santa Clara Valley Water Agency would be required to make an initial payment to the State of about \$16,400 in 1964 for its share of the capital costs of the transportation facilities of the State Water Project. The amount paid would increase each year until 1986, when \$349,230 would be paid. Payments would then remain constant from 1986 to 2013, after which time they would decrease until the capital costs would have been fully repaid in 2035.

The local distribution system for the service area would most likely be financed by the issuance and sale of bonds by the contracting agency. These bonds would probably be repaid from revenues derived from ad valorem taxation. A tentative repayment schedule was constructed from estimates of the probable cost of construction of the local distribution system (see Chapter IV). This schedule, while not intended to be a definite plan of capital cost repayment for local distribution facilities, provided a basis for estimating the necessary tax rates needed for the repayment of the cost of these facilities.

The annual repayment requirements, as estimated for both the transportation portion of the State Water Facilities and local distribution facilities, were compared with projections of assessed valuations in the agency area so that the tax rates that would be necessary for capital repayment could be determined. This was done in order to make certain that the necessary rate of taxation, should all capital repayment obligations be collected in this manner, would not place an unreasonable burden on the taxpayers of the area. The tax rates computed as necessary for capital repayment are shown in Table 22. The maximum tax rate, not shown in the table, would occur in 1971, when it would amount to about \$0.35 per \$100 assessed valuation.

TABLE 22

TAX RATES NECESSARY FOR CAPITAL REPAYMENT  
OF LOCAL DISTRIBUTION FACILITIES AND  
STATE WATER PROJECT

Year	Assessed valuation (\$000)	Capital repayment					
		Local conveyance facilities		State water facilities		Total	
		Amount	Tax <sub>1/</sub> rate	Amount	Tax <sub>1/</sub> rate	Amount	Tax <sub>1/</sub> rate
1972	\$127,000	\$116,560	\$0.092	\$296,444	\$0.233	\$413,004	\$0.325
1980	223,000	116,560	.052	347,261	.156	463,821	.208
1990	352,000	116,560	.033	349,228	.099	465,788	.132

1/ Dollars per \$100 assessed valuation.

For purposes of this analysis, it was assumed that capital repayment for both State and local water facilities would be accomplished through ad valorem taxation, and that other ad valorem property taxes would remain at substantially current levels in the future. Consideration was given to these projected levels of tax rates that would prevail in the future and to the ratio of bonded debt and water service contract debt to future assessed valuations under conditions of water importation. These tax rates and debt ratios were also compared with those in communities in similar circumstances in other areas. From these considerations, it was concluded that the Upper Santa Clara Valley Water Agency would have the financial capability of successful performance of its obligations under a water service contract with the State, to the extent of 23,000 acre-feet of annual water delivery as a maximum annual entitlement.





## CHAPTER VI. CONCLUSIONS

Analysis of the data gathered and presented in this report has led to the following conclusions:

1. The Upper Santa Clara Valley Water Agency has the potential for substantial population and economic growth, and external pressures point to a high probability for large increases in population and employment if sufficient water supplies are available to support future growth.

2. The local water supplies available in the area are not sufficient to satisfy its future requirements; therefore its future growth will be seriously restricted unless a supply of supplemental water is made available.

3. The Upper Santa Clara Valley Water Agency will have an economic demand for supplemental water supplies of about 23,000 acre-feet per year by the year 1990.

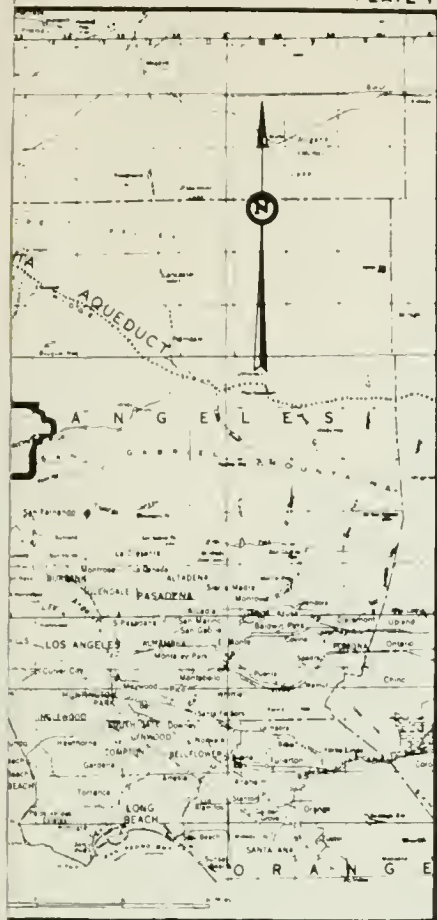
4. The Upper Santa Clara Valley Water Agency is empowered by its enabling legislation to enter into contracts with the State for the importation of water supplies through the State Water Project.

5. The financial position of the Upper Santa Clara Valley Water Agency is such that the increased debt and taxation requirements necessitated by the execution and performance of a water service contract with the State for a maximum entitlement of 23,000 acre-feet per year from the State Water Project would not impose an unreasonable financial burden on the area.

6. Financing the construction of necessary local distribution facilities, in addition to the debt incurred by a water service contract with the State, would not increase the agency's total ratio of debt obligation to assessed valuation beyond acceptable limits.



7. The Upper Santa Clara Valley Water Agency has the necessity, the legal ability, the economic justification, and the financial capability required to enter into a contract with the State of California for the service of water from the State Water Project.



ON MAP

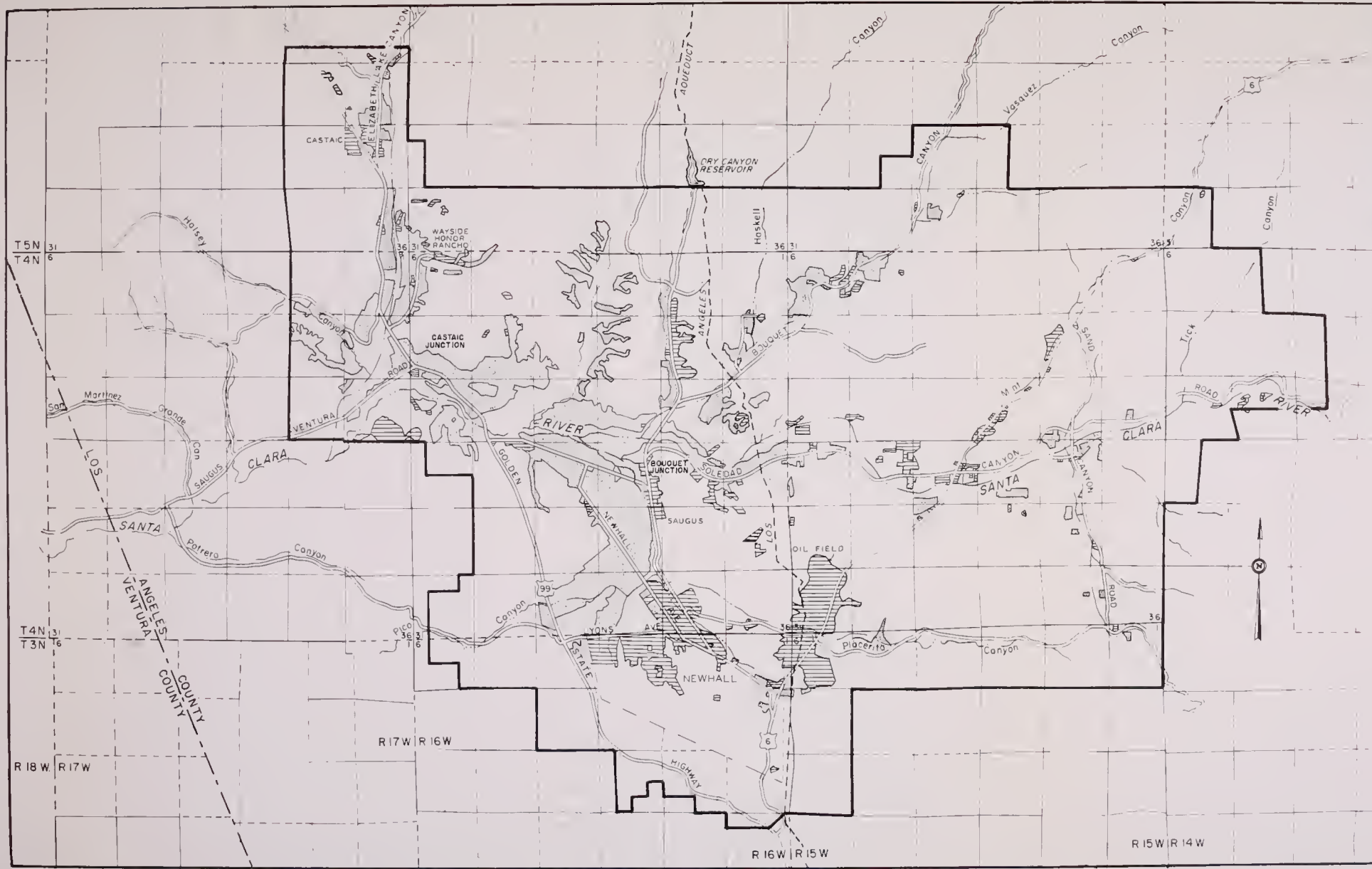
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LOCATION MAP

**LEGEND**

- URBAN AND SUBURBAN DEVELOPMENT
- IRRIGATED AGRICULTURE
- AGENCY BOUNDARY

STATE OF CALIFORNIA  
THE RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

FEASIBILITY OF SERVING  
THE UPPER SANTA CLARA VALLEY WATER AGENCY  
FROM THE STATE WATER PROJECT

LOCATION MAP AND BOUNDARIES OF  
AGENCY WITH LAND USE IN 1961



END

WATER-BEARING FORMATION

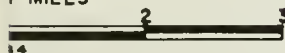
BOUNDARY

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DISTRICT

OF SERVING  
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WATER PROJECT

WATER BASIN  
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WATER-BEARING FORMATION

BOUNDARY

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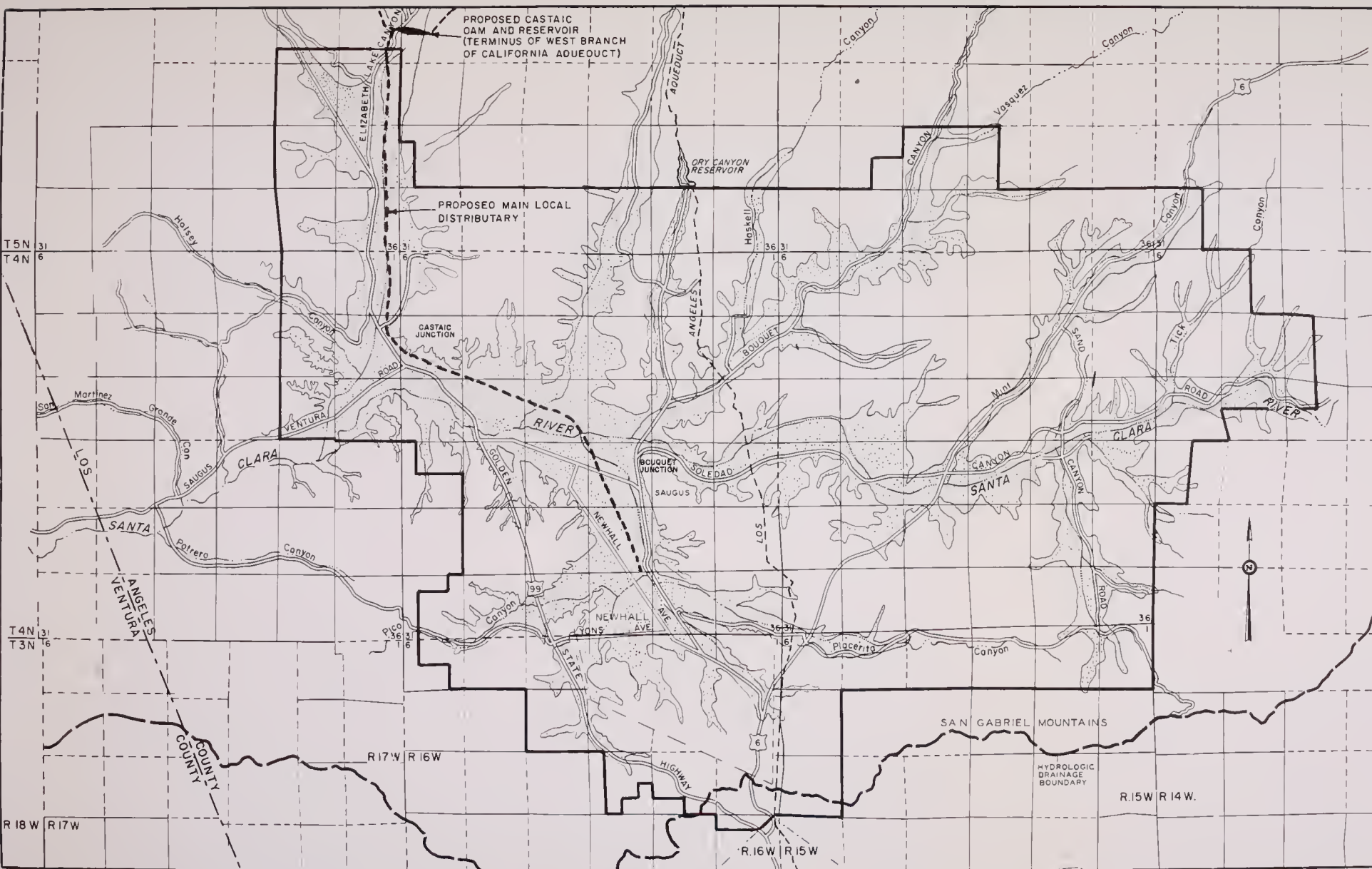
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STATE OF CALIFORNIA  
THE RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES  
SOUTHERN DISTRICT

FEASIBILITY OF SERVING  
THE UPPER SANTA CLARA VALLEY WATER AGENCY  
FROM THE STATE WATER PROJECT

GROUND WATER BASIN  
AND  
PROPOSED MAIN LOCAL  
DISTRIBUTARY





APPENDIX A  
CREDIT ANALYSIS OF THE  
UPPER SANTA CLARA VALLEY WATER AGENCY



APPENDIX A  
CREDIT ANALYSIS OF THE  
UPPER SANTA CLARA VALLEY WATER AGENCY



APPENDIX A

CREDIT ANALYSIS OF THE  
UPPER SANTA CLARA VALLEY WATER AGENCY

A. Statement of Debt of the Upper Santa Clara Valley Water Agency

1. Net Direct Debt (full faith and credit)
  - a. Bonds: none
  - b. Floating debt: none
  - c. Total debt: none
2. Special Obligations (not full faith and credit): none
3. Limitation on Debt
  - a. Promissory notes: The value of notes outstanding at any one time may be at least equal to \$75,000, but the total may not otherwise exceed the lesser of either \$1,000,000 or two percent of the assessed valuation of the taxable property in the agency. The interest rate on notes is limited to six percent per annum and their maturity to a period of three years from date of issuance.
  - b. Bonds: May not bear an interest rate of more than five percent per annum or have terms of more than 40 years.
  - c. Applicable statutes: Chapter 28, 1st Executive Session 1962, Section 9 (promissory notes), and Section 28 (bonds).
4. Amount of Bonds Authorized but Unissued: none
5. Utilities Operated by the Agency (other than water service): none

B. Debt of Overlapping, Coterminous, and Underlying Political Units

Name and character of unit bearing bonded indebtedness	:	Net debt	:	Net debt assignable :		Date of statement
				to the agency's area	Percent : Amount	
Los Angeles County - general	:	\$ 60,893,000	:	.4150	\$ 252,706	6-30-1962
Los Angeles County Flood Control District	:	205,151,500	:	.4502	923,592	"
Los Angeles County Sanita- tion District No. 26	:	195,000	:	100.0000	195,000	"
Elementary School Districts						
Castaic	:	--	:	63.2666	--	"
Los Angeles Unified	:	--	:	.0006	--	"
Newhall	:	749,000	:	50.5543	378,652	"
Saugus	:	663,000	:	96.0093	636,542	"
Soledad Agua Dulce	:	92,000	:	5.0457	4,642	"
Sulphur Springs	:	261,000	:	98.1225	256,100	"
High School Districts						
Antelope Valley	:	12,135,000	:	.2551	30,956	"
William S. Hart	:	1,965,000	:	67.5972	1,328,285	"
Antelope Valley Hospital District	:	440,000	:	.5270	2,319	"
Newhall County Water District	:	395,000	:	61.6407	243,481	"

C. Summary of Full Faith and Credit Debt of the Water Agency and Other Political Entities

Debt	As of June 30 (\$000)				
	1958	1959	1960	1961	1962
Net bonded debt	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Net floating debt	0	0	0	0	0
Overlapping debt, etc.	3,396,308	3,953,635	4,021,641	4,211,588	4,252,273
Total debt	<u>\$3,396,308</u>	<u>\$3,953,635</u>	<u>\$4,021,641</u>	<u>\$4,211,588</u>	<u>\$4,252,273</u>

D. Default Record. There has been no record of default in the payment of principal or interest during the past twenty years, either by the water agency or by any overlapping, coterminous or underlying taxing district.

E. Assessed Valuation of Property in the Upper Santa Clara Valley Water Agency

1. Assessed Valuation

Type of property	Valuation (\$000)				
	1958-59	1959-60	1960-61	1961-62	1962-63
Real property	\$ 32,795	\$ 36,468	\$ 39,466	\$ 41,406	\$ 44,278
Personal property	8,128	6,343	7,247	8,191	8,227
Less exemptions	- 419	- 494	- 571	- 679	- 954
Total assessed value	<u>\$ 40,504</u>	<u>\$ 42,317</u>	<u>\$ 46,142</u>	<u>\$ 48,918</u>	<u>\$ 51,551</u>
Estimated market value	<u>\$135,013</u>	<u>\$180,842</u>	<u>\$198,034</u>	<u>\$200,484</u>	<u>\$209,556</u>

2. Assessment Ratio (proportion of market value)<sup>1/</sup>

1958-59	30.0%
1959-60	23.4
1960-61	23.3
1961-62	24.4
1962-63	24.6

<sup>1/</sup> As estimated by the State Board of Equalization.



3. Important Tax Exempt Property Within the Agency

The most important block of tax exempt property in the agency are the seven detention facilities operated by the County of Los Angeles. The largest of these facilities is the Wayside Honor Farm, which encompasses 2,800 acres of land north of Castaic. The six other facilities occupy an additional 900 acres of land, bringing the total area used for these facilities to 3,700 acres.

4. Concentrations of Valuable Property Just Outside the Area

The district lies within a short distance of the most heavily populated sections of the Los Angeles metropolitan area, which has a substantial concentration of property wealth.

5. Ten Largest Taxpayers in the Area: The two largest taxpayers in the agency's area are the Newhall Land and Farming Company and the Lockheed Aircraft Corporation. The property owned by these two companies had an assessed valuation of \$3,708,000 and \$2,324,000, respectively, during the 1962-63 fiscal year. Based on the ratio of these valuations to the total assessed valuation of property in the agency's area, it was estimated that these two companies account for about 12 percent of the area's total tax collections. On this same basis, it was estimated that the next eight largest taxpayers account for an additional 1-1/2 percent of total county collections.

F. Tax Rates on Property in the Upper Santa Clara Valley Water Agency

1. Tax rates

: Weighted average tax rate (per \$100 assessed valuation)					
Taxing district	: 1958-59	: 1959-60	: 1960-61	: 1961-62	: 1962-63
County rate <sup>1/</sup>	\$2.13	\$2.25	\$2.23	\$2.26	\$2.27
School districts	3.13	3.25	3.48	3.46	3.91
Special districts	<u>.63</u>	<u>.74</u>	<u>.70</u>	<u>.69</u>	<u>.87</u>
Total rate	<u>\$5.89</u>	<u>\$6.24</u>	<u>\$6.41</u>	<u>\$6.41</u>	<u>\$7.05</u>

<sup>1/</sup> Includes Road District No. 5 and County Public Library.

2. Assessment Roll. Taxes for all districts are levied from the same assessment roll.

3. Legal Limits on Tax Rates (in dollars per \$100 assessed valuation).

- |                           |          |  |
|---------------------------|----------|--|
| a. County library         | \$0.30   |  |
| b. Flood control district | 0.15     | Plus taxes for bonds and other special assessments. No limit for drainage improvement.   |
| c. Hospital districts     | 0.20     | Plus taxes for bonds and other special assessments.  |
| d. Road districts         | 0.60     |  |
| e. Sanitation districts   | No limit | Sufficient to pay interest and principal on bonds and operating costs of the district.   |
| f. School districts       | 2.00     | From elementary school through junior college. Bonded debt subject to additional rates. Increased rates may be allowed by California Education Code. |
| g. County water districts | No limit | Sufficient to pay interest and principal on bonds and operating costs of the district.   |

4. Taxes by Classification of Property. Tax rates levied by the county for special districts do not have a common tax base. Tax rates for the flood control district and sanitation districts are levied only

4. Taxes by Classification of Property. (cont'd)

against land and improvement valuations. Tax rates for all other special districts within the Upper Santa Clara Valley Water Agency are levied against all property valuations, i.e., land, improvements, and personal property within that district.

5. Division of Tax Rates into Separate Levies. Tax rates for the county and for the following special districts are classified into the various components shown below:

County tax rate: general fund, accumulative capital outlay, exploitation and exposition

County flood control district: general fund, interest and sinking fund

Hospital districts, and county water districts: maintenance funds, interest and sinking funds

Sanitation districts: interest and sinking fund, maintenance, refuse disposal

G. Record of Tax Collections on Property in the Upper Santa Clara Valley County Water Agency

1. Tax Collections

Fiscal year	Amount levied	Cash collections		Uncollected at end	
		in year of levy		of fiscal year	
		Amount	Percent	Amount	Percent
1962-63	\$3,634,334	\$3,587,088	98.7	\$47,246	1.3
1961-62	3,135,643	3,082,337	98.3	53,306	1.7
1960-61	2,957,677	2,898,523	98.0	59,154	2.0
1959-60	2,640,596	2,600,987	98.5	39,609	1.5
1958-59	2,385,678	2,364,207	99.1	21,471	0.9
1957-58	2,023,665	2,003,428	99.0	20,237	1.0

G. Record of Tax Collections on Property in the Upper Santa Clara Valley  
County Water Agency (cont'd)

2. When Taxes are Due

a. Due date: The first half of taxes levied by the county are due on or before November 1st and the second half on or before February 1st.

b. When delinquent: December 10th and April 10th following the due date.

c. Penalties: Penalties attach as of the delinquent date, to the extent of six percent of each delinquent installment.

3. Tax Sales: Tax sales of delinquent property are held regularly by the county.

4. Estimated Tax Delinquency: Each year the County Auditor estimates a tax payment delinquency which is used for budget purposes and for computing necessary tax levies and rates for the ensuing year. The estimate is generally five percent of the total levy.

5. Collection of Taxes: The county tax collector collects all taxes

H. Receipts and Disbursements of the Upper Santa Clara Valley Water Agency

Receipts and disbursement items	:	Amounts for period beginning :August, 1962 and ending January, 1963
1. <u>Cash, beginning of period</u>	\$	0
2. <u>Bank loan</u>		15,000.00
3. <u>Receipts</u>		
a. Tax levies		0
b. Water sales		0
c. Other continuing revenues		0
d. Interest		<u>0</u>
e. Total receipts		\$15,000.00
4. <u>Total cash plus receipts</u>		<u>\$15,000.00</u>

H. Receipts and Disbursements of the Upper Santa Clara Valley Water Agency  
(cont'd)

<u>Receipts and</u> <u>disbursement items</u>	: :Amounts for period beginning :August, 1962 and ending January, 1963
5. <u>Disbursements</u>	
a. Operating expense (admin.)	\$11,261.75
b. Water purchases	0
c. Capital and emergency ex- penses	0
d. Debt service	<u>0</u>
6. <u>Total disbursements</u>	<u>\$11,261.75</u>
7. <u>Cash, end of period</u>	<u>\$ 3,738.25</u>

I. Sinking Fund Operations. There are no sinking funds being operated by the agency at this time.

J. Future Debt Service Requirements. None exist for the agency as an entity at this time.

K. Management and Services

1. Fiscal Policies. The agency has been in existence such a short time that no valid judgment can be made of its fiscal policies.
2. General Character and Efficiency of the Management. The management has been effective in its efforts to establish the agency and in its negotiations with the State for a water service contract.
3. Services Performed by the Agency. Thus far, the agency has acted only as a disseminator of information and as a negotiator for water service from the State Water Project. Upon receiving imported water, it will act as a distributor of water to wholesale customers in the agency.



L. Economic Background

1. Land Area. The agency has a gross area of 79,000 acres.
2. Population (including inmates of Los Angeles County detention facilities):

<u>Year</u>	<u>Population</u>
1940	4,400
1950	8,000
1960	15,600

3. Employment<sup>1/</sup>

<u>Industry group</u>	<u>: Employment April 1960</u>
Mining	112
Construction	350
Manufacturing	1,003
Transportation, communication, utilities	321
Wholesale and retail trade	692
Government	746
All other	<u>1,106</u>
Total	<u><u>4,330</u></u>

<sup>1/</sup> Source: United States Census. Data represent jobs held by residents working both in and outside the Upper Santa Clara Valley Water Agency.

4. Agriculture. Although farm production has levelled off in recent years, agriculture is still a major element in the economy of the Upper Santa Clara Valley. The production of beef cattle, poultry, alfalfa, and vegetable crops are the dominant agricultural activities in the area.

5. Industry

a. Principal industries

- (1) Petroleum refining
- (2) Electronics
- (3) Chemicals
- (4) Stone, clay, and glass



b. Large industrial plants in the area

- (1) Lockheed Aircraft Corporation
- (2) Golden State Fireworks
- (3) U. S. Flare Corporation
- (4) Thatcher Glass
- (5) Newhall Refinery

6. Trade. Downtown Newhall is the center for local trade in the area. Residents shop there largely for groceries, drugs, auto supplies, and service needs, relying more on the nearby Los Angeles metropolitan area for clothes and furniture. Roadside establishments, located at various points along the major highways, cater to the needs of travelers for food, lodging, and other services.
7. Transportation. U. S. Highway 99, the main highway connecting Southern California with the San Joaquin Valley, crosses the agency's area. Highways also lead westward from the Upper Santa Clara Valley to Ventura County and eastward into the Antelope Valley. The Southern Pacific Railroad, with stations at Newhall and Saugus, provides freight and passenger service along a trans-continental route. The area is also served by the Greyhound and Continental Trailways bus lines, and by numerous trucking companies.
8. Natural Resources. The most important mineral resources in the area are the petroleum and gas deposits near Newhall and Saugus. Some shale used in the manufacture of brick is quarried near the junction of the Golden State Freeway and Elizabeth Lake Canyon Road. Placer deposits of gold were worked during the 1840's and 1850's in canyons tributary to the Santa Clara River, but none are of economic importance today.

M. Financial Data for the Upper Santa Clara Valley Water Agency

1. General data

a. Population (excluding inmates of Los Angeles County detention facilities)

1950	7,000
1960	12,400
1962	16,900

b. Assessed valuation

(1) Amount (1962-63)	\$ 51,550,830
(2) Basis of assessment	24.6%
(3) Estimated full valuation	\$209,556,220

c. Bonded debt (6-30-62) \$ 4,252,275

d. Tax collections (1962-63) \$ 3,587,088

2. Per Capita Data, 1962-63

a. Assessed valuation \$ 3,050

b. Estimated full valuation \$ 12,400

c. Bonded debt \$ 252

d. Tax collections \$ 212

3. Ratios

a. Tax supported bonded debt as a percentage of:

(1) Assessed valuation	8.2%
(2) Estimated full valuation	2.0
(3) Tax collections	118.5

b. Percentage increase

(1) Population, 1950 to 1963	168.8%
(2) Assessed valuation, 1957-58 to 1962-63	32.5
(3) Bonded debt, 1958 to 1962	25.2
(4) Tax collections, 1957-58 to 1962-63	79.0









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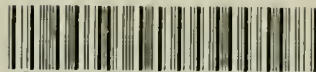
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